UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF MISSISSIPPI
OXFORD DIVISION

KELLI DENISE GOODE, Individually, and also as the Personal Representative of Troy Charlton Goode, Deceased, and as Mother, Natural Guardian, and Next Friend of R.G., a Minor, and also on behalf of all similarly situated persons	**PLAINTIFF**
V.	**NO. 3:17-CV-60-DMB-RP**
THE CITY OF SOUTHAVEN, et al.	**DEFENDANTS**

ORDER

Before the Court is "Defendant Lemuel D. Oliver, M.D.'s *Daubert* Motion to Exclude Plaintiff's Proposed Expert Testimony." Doc. #399.

I
Procedural History and Relevant Factual Background

On January 13, 2016, Kelli Denise Goode—individually, and in her capacity as the personal representative of her deceased husband, as next friend to her minor son, and on behalf of "similarly situated persons"—filed a complaint in the United States District Court for the Western District of Tennessee "seek[ing] damages and injunctive relief based upon the untimely death of [her husband] Troy Charlton Goode …." Doc. #1 at 1–2. On August 15, 2016, Kelli,[1] in the same capacities as that in her original complaint, filed an amended complaint, naming as defendants the City of Southaven, Todd Baggett, Jeremy Bond, Tyler Price, Joel Rich, Jason Scallorn, Stacie J. Graham, Mike Mueller, William Painter, Jr., Bruce K. Sebring, Joseph Spence, Richard A. Weatherford (collectively, "Southaven Defendants"); John Does 1-10; Baptist Memorial Hospital-

[1] To avoid confusion, the Goodes' first names are used.

Desoto ("BMH-D"); Southeastern Emergency Physicians, Inc.;[2] and Lemuel D. Oliver, M.D. Doc. #107. In her amended complaint, Kelli asserts numerous state and federal claims against the defendants regarding Troy's death—which Kelli alleges was caused by positional asphyxia and his placement in a maximal, prone restraint.[3]

On March 31, 2017, this action was transferred from the Western District of Tennessee to this Court. Doc. #246. On January 23, 2018, after a period of extended discovery, Oliver filed a *Daubert* motion to exclude Kelli's proposed expert testimony, Doc. #399, along with a memorandum brief, Doc. #400. Oliver's motion and memorandum were joined by BMH-D, Doc. #415, and the Southaven Defendants, Doc. #408. On February 6, 2018, Kelli responded in opposition to the motion. Doc. #458. A week later, Oliver replied to Kelli, Doc. #469, and was joined by BMH-D, Doc. #472, and the Southaven Defendants, Doc. #474.[4]

II
Legal Standard

Federal Rule of Evidence 702 provides:

> A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:
>
> (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

[2] Southeastern Emergency Physicians, LLC (previously identified as Southeastern Emergency Physicians, Inc.) was dismissed with prejudice from this case by stipulation. Doc. #496.

[3] Kelli's 66-page amended complaint contains fourteen counts: civil conspiracy (Count I); 42 U.S.C. § 1983 claims (Counts II-VIII); violation of Tennessee Code § 40-32-101 (Count IX); violation of Mississippi Code §§ 11-7-13 and 11-46-9 (Count X); intentional and negligent infliction of emotional distress (Count XI); common law "outrage" (Count XII); violation of right to interstate travel and hospital visitation (Count XIII); and medical malpractice (Count XIV).

[4] Many of the parties' submissions on the evidentiary motions filed in this case fail to comply with the Court's local rules. For example, in some instances, exhibits are attached to memorandum briefs or to documents which are in substance and form memorandum briefs because they contain argument and authorities. *See* L.U. Civ. R. 7(b)(2) ("The memorandum brief must be filed as a separate docket item from the motion or response and the exhibits."). Filings that fail to comply with the Court's procedural rules generally are stricken and/or not considered by the Court. For the sake of efficiency, the Court will excuse these procedural failures in this instance. However, the Court reminds the parties that "[a]ttorneys practicing before the district courts of Mississippi are charged with the responsibility of knowing the Local Rules … and may be sanctioned for failing to comply with them." L.U. Civ. R., Preamble.

(b) the testimony is based on sufficient facts or data;
(c) the testimony is the product of reliable principles and methods; and
(d) the expert has reliably applied the principles and methods to the facts of the case.

Under *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), a district court has a "special obligation … to ensure that any and all scientific testimony … is not only relevant, but reliable." *Bear Ranch, L.L.C. v. Heartbrand Beef, Inc.*, 885 F.3d 794, 802 (5th Cir. 2018) (alterations and internal quotation marks omitted). "To establish reliability under *Daubert*, an expert bears the burden of furnishing some objective, independent validation of his methodology." *Brown v. Ill. Cent. R.R. Co.*, 705 F.3d 531, 536 (5th Cir. 2013) (alterations and internal quotation marks omitted).

When considering reliability, *Daubert* dictates that trial courts should consider "the extent to which a given technique can be tested, whether the technique is subject to peer review and publication, any known potential rate of error, the existence and maintenance of standards governing operation of the technique, and, finally, whether the method has been generally accepted in the relevant scientific community." *Hathaway v. Bazany*, 507 F.3d 312, 318 (5th Cir. 2007). The *Daubert* factors "are not mandatory or exclusive." *Id*. Rather, the district court should consider whether the enumerated factors "are appropriate, use them as a starting point, and then ascertain if other factors should be considered." *Id*. (citing *Black v. Food Lion*, 171 F.3d 308, 311–12 (5th Cir. 1999)). Overall, the Court must be mindful of "the fact that … testimony may be assailable does not mean it is inadmissible under Rule 702. The trial court's role as gatekeeper … is not intended to serve as a replacement for the adversary system." *United States v. Ebron*, 683 F.3d 105, 139 (5th Cir. 2012).

III
Analysis

In his motion, Oliver asserts particularized objections to the various experts designated by Kelli and lodges a blanket objection that there is no scientific basis for the assertion that prone maximal restraint ("PMR")[5] causes positional asphyxia.

A. PMR and Positional Asphyxia

Oliver argues that "[m]ultiple scientific, peer reviewed studies have found the PMR does not cause positional asphyxia or otherwise lead to cardiorespiratory compromise and death. This is contrary to Plaintiff's theory on causation and her experts' testimony. In fact, Plaintiff's experts have no reliable scientific studies to support their theory." Doc. #400 at 8. Relying on *Price v. County of San Diego*, 990 F.Supp. 1230 (S.D. Cal. 1998), Oliver contends that Kelli's experts' theories have not garnered acceptance from the scientific community and that this Court should follow the Fifth Circuit's admonishment to "pay close attention when Plaintiff's expert attempts to depart from the generally accepted scientific methodology …." Doc. #400 at 19; *see* Doc. #469 at 4–5. Oliver argues that Kelli's "experts should be excluded as their theories are genuinely not scientific and are nothing more than bold speculations." Doc. #400 at 19 (citing *Moore v. Ashland Chem., Inc.*, 151 F. 3d 269, 276 (5th Cir. 1998)).

In response, Kelli asserts that "there are numerous reliable scientific studies supporting" her theory that the PMR can lead to positional asphyxia, citing a list of eleven supporting articles that constitute "a few of the sources relied upon by plaintiff and plaintiff's experts in this matter."

[5] The parties have used several terms to refer to Troy's restraint and argue over whether Troy was technically "hog-tied." *See, e.g.*, Doc. #463-7 at 14–15 (stating hog-tie involves two sets of handcuffs while a four-point restraint involves one set of handcuffs and one set of leg shackles); Doc. #533 (Southaven Defendants' motion in limine seeking to exclude use of term hog-tie). Here, the Court will use the terminology "prone maximal restraint" as employed by Oliver; elsewhere, the Court uses the term "four-point restraint" to avoid inflammatory language without detracting from the seriousness of Kelli's allegations.

Doc. #458 at 4–7. Kelli questions the reliability of the opinions relied on by Oliver, noting that they originate from "a series of studies by Chan, Vilke, and Neuman … [that] were funded by the San Diego Police Department as a result of a number of 'in custody' deaths from [PMR] and subsequent litigation." *Id*. at 7. Kelli further argues that these studies do not apply to Troy's case and that Troy would have been excluded from the studies because he suffered from a documented breathing problem, asthma. *Id*. This Court, for numerous reasons, agrees with Kelli that neither *Price* nor the studies bar testimony connecting PMR and positional asphyxiation.

First, *Price* was a bench trial in which the admissibility of expert testimony was not at issue, and "[s]everal attempts to expand the holding of *Price* to exclude expert testimony on positional asphyxia have been rejected." *Watson-Nance v. City of Phoenix*, No. CV-08-01129, 2011 WL 13152466, at *12 (D. Ariz. June 16, 2011).[6]

Second, a 2007 study relied on by Oliver, for example, excluded subjects like Troy with a history of pulmonary[7] or cardiac problems, noting that its "subjects were young and generally healthy and may not reflect the population of individuals who are restrained in the field setting." Doc. #458 at 7.

Third, none of the studies "replicated the conditions in the field, including psychological and physical stressors associated with pursuit by a law enforcement official, struggle or trauma."

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[6] *See Kretek v. Bd. of Comm'rs of Luna Cty.*, No. Civ. 11-676, 2014 WL 11621941, at *3 (D.N.M. Feb. 26, 2014) (expert testimony on positional asphyxiation presents question of weight, which is matter for jury to decide); *Pirolozzi v. Stanbro*, No. 5:07-CV-798, 2009 WL 1441070, at *4 (N.D. Ohio May 20, 2009) (experts' testimony on positional asphyxiation raise "questions of weight that should be given their testimony, which is the province of the jury to decide, rather than the reliability of the testimony"); *Giannetti v. City of Stillwater*, No. CIV-04-926, 2006 WL 5100544, at *3–4 (W.D. Okla. Jan. 26, 2006) (plaintiff's experts' causation testimony on positional asphyxia "is sufficiently reliable to pass the admissibility threshold under *Daubert*"); *Johnson v. City of Cincinnati*, 39 F.Supp.2d 1013, 1017 (S.D. Ohio 1999) (refusing to apply *Price* to exclude plaintiff's causation expert on positional asphyxia because "this is a classic 'battle of the experts' situation").

[7] In his deposition, defense expert Gary Vilke, M.D., admitted that Troy would have been excluded from a study he conducted, as Troy suffered from asthma. Doc. #458 at 7–8.

Id. at 8.

Fourth, none of the studies involved restraints lasting longer than fifteen minutes, although Troy was placed in a PMR for approximately an hour and a half. *Id*. at 7.

Fifth, unlike the participants in the studies, Troy was under the influence of drugs, which would have disqualified him from any of the studies according to Vilke. *Id*. at 8.

Finally, Kelli has cited numerous texts which establish a connection between PMR and positional asphyxiation.

Accordingly, the conclusion that PMR can cause positional asphyxia is reliable within the meaning of *Daubert*. *See Gutierrez v. City of San Antonio*, 139 F.3d 441, 451 (5th Cir. 1998) ("hog-tying" may create substantial risk of death or bodily injury in limited set of circumstances, such as when drug-affected person in state of excited delirium is placed face down in prone position).

B. Parin Parikh

Parin Parikh is an attending physician specializing in interventional cardiology and cardiovascular medicine at Texas Health Presbyterian Dallas Hospital, a position he has held since 2013. Doc. #458 at 14. A 2006 graduate of the Johns Hopkins University School of Medicine, Parikh is board certified in interventional cardiology, cardiovascular medicine, and adult internal medicine. *Id*. He is also certified in vascular interpretation by the American Registry for Diagnostic Medical Sonography, in nuclear cardiology by the Certification Board of Nuclear Cardiology, and in adult comprehensive echocardiography by the National Board of Echocardiography. Doc. #458-4 at 1–2.

Oliver contends that Parikh should be precluded from offering any standard of care or causation expert testimony. Doc. #400 at 18, 20–21.

1. Qualifications to testify as to causation

Oliver contends that Parikh's testimony should be excluded because (1) he has not published any literature or performed any research that is relevant to the issues in this case, *id.* at 20; (2) he admits he is not an expert in positional asphyxia, having testified that he has never treated a patient with the condition, *id.*; (3) he had not reviewed any literature on PMR or positional asphyxia prior to being retained, and admits that some of the literature he consulted disagrees with his conclusions on PMR, *id.*; and (4) he cites to studies in his report which find that PMR does not cause cardiovascular compromise, *id.* at 20–21, 23.

Parikh's curriculum vitae establishes that he is qualified to comment on how the "use of restraint and subsequent care play[ed] a role in [Troy's] cardiovascular collapse, cardiac arrest and eventual death." Doc. #458-5 at 4. He holds several board certifications in cardiology and, besides his current work as an attending physician in interventional cardiology and cardiovascular medicine, he was Chief Fellow in Interventional Cardiology at New York University Langone Medical Center from 2012-2013. Doc. #458-4 at 1–2. His curriculum vitae lists eight scientific publications and nine scientific abstracts and presentations, the majority of which pertain to cardiology. *Id.* at 3–4. That Parikh has not researched positional asphyxia or treated a patient with the condition—or the fact that some of the literature on the subject disagrees with his conclusion—does not render him unqualified to testify on the cause of heart defects. *See Kidd v. Candy Fleet, LLC*, No. 16-71, 2016 WL 6969437, at *5–6 (E.D. La. Nov. 29, 2016) (expert witness is not strictly confined to his area of practice and lack of specialization should generally go to weight of evidence rather than its admissibility). Thus, given his medical expertise and training, Parikh is qualified to address causation questions related to cardiology.

2. Reliability of causation theory

Oliver argues that any expert causation testimony from Parikh should be excluded under *Daubert* as speculative and lacking reliability because Parikh's theory—that Troy's position in a PMR caused him to suffer positional asphyxia—is unsupported, and even contradicted, by the scientific literature. Doc. #400 at 18.

Kelli responds that Parikh "based his expert opinion, in part, on the articles of Ho, Dharmarvaran and Servan" and contends that Parikh is thus qualified to opine "that the hogtie position used to restrain Mr. Goode leads to decreased cardiovascular output as well as cardiovascular compromise" and that the PMR "prevented proper assessment and monitoring" of Troy's "abnormal vital signs," which "likely was the substantial factor contributing to reduced cardiac output and hemodynamic collapse." Doc. #458 at 14–15.

Oliver replies that Parikh cites articles contradicting the conclusion that PMR causes positional asphyxiation, and that many of the articles relied on by Kelli's response were not produced or disclosed and should therefore be disregarded. Doc. #469 at 2–3, 5. Moreover, Oliver, quoting *Price*, argues that the authorities relied on by Parikh have been discredited in prior cases. *Id*. at 4–5.

As a general rule, a cardiologist need not cite medical literature in support of his expert opinion where, as here,[8] he bases his opinion on his experience and a review of, "among other things, … [plaintiff's] medical records and the coroner's records, and on a broad spectrum of published materials." *Carroll v. Morgan*, 17 F.3d 787, 789–90 (5th Cir. 1994) (rejecting challenge to cardiologist based on argument that expert "refused to recognize any medical textbooks or journal articles as authoritative on endocarditis"). Furthermore, even if supporting literature were

[8] *See* Doc. #458-5 at 4–5 (describing methodology).

a requirement, Parikh's opinion, which cites various studies supporting its conclusion, would still be admissible. *See* Doc. #458-5 at 5 (listing supporting studies).[9] Accordingly, the Court rejects Oliver's assertion that the absence of supporting literature renders Parikh's causation opinion unreliable. *See Estate of Carlock v. Williamson*, No. 08-3075, 2012 WL 75765, at *5–6 (C.D. Ill. Jan. 10, 2012) (theories that PMR can cause positional asphyxia "appear to be generally accepted in the scientific community, although there is some debate").

3. Standard of care opinion

Oliver argues that Parikh's standard of care opinion should be excluded because Parikh was not disclosed as having one. Doc. #400 at 18. Kelli does not address this argument in her response.

Federal Rule of Civil Procedure 26(a)(2)(B)(i) provides, in pertinent part, that an expert witness must provide a written report containing "a complete statement of all opinions the witness will express and the basis and reasons for them." Moreover, Federal Rule of Civil Procedure 37(c)(1) provides, in pertinent part, that "[i]f a party fails to provide information or identify a witness as required by Rule 26(a) …, the party is not allowed to use that information or witness to supply evidence on a motion, at a hearing, or at a trial, unless the failure was substantially justified or is harmless." Further, Local Uniform Civil Rule 26(a)(2) provides, in pertinent part, that "[a]bsent a finding of just cause, failure to make full expert disclosures by the expert designation deadline is grounds for prohibiting introduction of that evidence at trial."

Kelli does not dispute Oliver's assertion that Parikh was not disclosed as offering standard

[9] Having reached this conclusion without consideration of the materials cited in Kelli's response, the Court declines to address whether such materials should have been disclosed.

of care testimony[10] and does not argue that the failure to disclose is harmless or justified. Accordingly, any standard of care testimony by Parikh will be not be allowed at trial.

C. Cyril Wecht

Cyril Wecht is a forensic pathologist who graduated from the University of Pittsburgh School of Medicine in 1956 and has held an appointment there as a Clinical Professor of Pathology since 1996. Doc. #458 at 17. Wecht is double board certified by the American Board of Pathology in Forensic Pathology and Anatomic and Clinical Pathology. Doc. #458-6 at 14. Wecht has served as Chief Pathologist and Chairman of the Department of Pathology at St. Francis Central Hospital and Pathologist and Lab Director at the Podiatry Hospital, both in Pittsburgh, in addition to numerous other appointments in his field. Doc. #459 at 17.

Oliver challenges Wecht's opinions regarding standard of care and causation.

1. Standard of care

Oliver contends that because Wecht does not treat patients, he should be precluded from offering standard of care opinions against him. Doc. #400 at 17. In response, Kelli concedes that Wecht cannot offer standard of care testimony. Doc #458 at 19–20. Accordingly, the Court will exclude Wecht's opinions insofar as they relate to the applicable standard of care.

2. Causation

Oliver argues that Wecht has neither cited a source nor conducted any studies to support his opinion that Troy's death was caused by positional asphyxia related to being maintained in a PMR; rather, Wecht has merely "opined that 'most' forensic pathologists believe a hogtie position could lead to death" while acknowledging existing studies contradict his opinion. Doc. #400 at

[10] Parikh's Rule 26 disclosure was not part of the record but the Court accepts the undisputed representations of counsel in this regard.

19; *see* Doc. #469 at 2. Kelli responds that Wecht performed an autopsy and determined Troy died from positional asphyxia. Doc. #458 at 18. Kelli submits that Wecht will testify that, based on the autopsy, the PMR caused respiratory compromise in Troy, which diminished oxygen flow to his brain, which in turn diminished control of his brain, cardiac, and respiratory functions. *Id*.

Based on his July 20, 2015, autopsy, review of medical files, and knowledge of the medical literature, Wecht offered his "professional opinion that Mr. Troy Goode most likely died from cardiac arrhythmia that developed as a result of the pathophysiological processes that were precipitated by the prolonged hog-tie position in which he was placed for more than an hour." Doc. #458-7 at 5. "It is well within a pathologist's skill set to perform an autopsy, review a decedent's health records, and make a judgment as to his cause of death." *Zink v. McClung*, No. 5:14cv25, 2014 WL 12596538, at *3 (N.D.W. Va. Nov. 14, 2014); *see Bornstad ex rel. Estate of Bornstad v. Honey Brook Twp.*, No. C.A.03-cv-3822, 2005 WL 2212359, at *11 (E.D. Pa. Sept. 9, 2005), *aff'd sub nom. Bornstad v. Honey Brook Twp.*, 211 F. App'x 118 (3d Cir. 2007) (admitting forensic pathologist's different diagnosis based on autopsy that compression asphyxia caused death and noting that "several forensic pathologists may review the same data regarding a person's death and arrive at different conclusions regarding the cause of that death"); *see generally Bell v. State*, 725 So.2d 836, 853–54 (Miss. 1998) ("A forensic pathologist addresses two basic questions: what was the cause of death, and what was the manner of death?"). Wecht is double board certified by the American Board of Pathology and his curriculum vitae lists twenty-four teaching appointments in the areas of pathology and legal medicine along with dozens of academic presentations. Doc. #458-6 at 5–14. His methodology—conducting an autopsy and reviewing medical records and the relevant literature—is reliable. Accordingly, his causation testimony will be admitted.

D. Michael Arnall

Michael Arnall, a 1982 graduate of the Washington University School of Medicine, has worked as a forensic pathologist and medical examiner since 1987. Doc. #458 at 20–21. Arnall's medical internship and residency focused on forensic pathology, and he completed two pathology fellowships—one in forensic, the other in surgical. *Id*. at 20. The American Board of Pathology has certified Arnall in three areas—Anatomic, Clinical, and Forensic Pathology. *Id*. at 21; Doc. #458-8 at 2.

As he did with Wecht, Oliver challenges Arnall's ability to opine on the applicable standard of care and Troy's cause of death. Oliver also seeks to exclude Arnall's opinions that Troy suffered from metabolic acidosis and oxygen saturation, and that the administration of Haldol and Ativan contributed to Troy's death.

1. Standard of care

Oliver contends that Arnall should be precluded from offering standard of care opinions against him because Arnall is a forensic pathologist treating deceased patients. Doc. #400 at 17. In response, Kelli concedes that Arnall cannot offer standard of care testimony. Doc. #458 at 22. Accordingly, Arnall will be precluded from offering opinions on the applicable standard of care.

2. Causation opinions

Oliver argues that Arnall's causation opinions should be excluded because he has not conducted any testing or research on PMR or positional asphyxia, and he cannot cite to a single scientific study to support his conclusions. Doc. #400 at 20. Oliver also submits that the authorities Arnall relies on have been discredited and that the articles Arnall cites—which are not research studies, peer reviewed articles, or learned treatises—contradict his testimony in that they do not conclude that PMR affects lung function. *Id*. at 8–9, 24–25.

In response, Kelli maintains that Arnall is qualified to opine on causation, namely that Troy's positioning in a PMR—exacerbated by his asthma and the intravenous administration of chemical restraints—was a substantial contributing cause to his death by positional asphyxia. Doc #458 at 21–22. Kelli asserts that in forming his opinion, Arnall reviewed medical records and other materials. *Id*. at 21–22. Moreover, Kelli maintains that Arnall's opinions on Troy's inability to breathe is corroborated by the Spitz textbook, the Roeggla study, independent witness Janet Tharpe, and pulse oximeter readings. *Id*.

Arnall relied upon his "education and experience [as] a forensic pathologist in stating [his] opinion," along with materials furnished to him by Kelli's counsel. Doc. #458-9 at 2. Arnall's expert report contains multiple references to medical texts in support of his opinion that "prone restraint predictably exacerbates the risk of sudden death," citing MEDICOLEGAL INVESTIGATION OF DEATH (fourth edition) edited by Werner Spitz.[11] *Id*. at 8. Arnall also cited to *Sudden death during restraint: do some positions affect lung function?* by J. Parkes for the proposition that "[m]any individuals hogtied and prone show a significant reduction in lung function." Doc. #458-9 at 8.

Oliver challenges Arnall's reliance on the Parkes study by asserting that "Arnall admitted that the article did not conclude that the particular restraint resulted in a clinically significant change in, or fatal lung function." Doc. #400 at 24. However, Oliver's characterization is contradicted in the abstract of the Parkes study, which states, "Recommendations that all restraint positions pose equal risk, or that all prone restraint is dangerous, are not supported by these findings. *Some, but not all, prone restraint positions show significant restriction of lung*

[11] This textbook has been described as the "gold standard in the field" by an expert testifying on positional asphyxia who cited the text and was admitted by the trial court to testify after a *Daubert* challenge. *Estate of Burns v. Williamson*, No. 11-cv-3020, 2015 WL 4464708, at *3 (C.D. Ill. July 21, 2015).

function."[12] The Parkes study thus indicates that a risk exists for PMR to significantly restrict lung function, a predicate for a diagnosis of positional asphyxia.

Oliver also objects to Arnall's reliance on the textbook SUDDEN DEATHS IN CUSTODY, which is edited by Chan and reflects his view that the link between PMR and positional asphyxia "is not supported by the overwhelming majority of the experimental data that currently exist." Doc. #400 at 25. However, this quotation merely underscores that there is a divergence in views among forensic pathologists on whether PMR can cause positional asphyxia—reflected in the ongoing controversy as to the validity of Chan's conclusions—which has nevertheless not precluded experts from testifying that PMR can cause positional asphyxia. As such, Oliver's arguments should be directed to weight, not admissibility. *See Huss v. Gayden*, 571 F.3d 442, 452 (5th Cir. 2009) ("Differences in expertise bear chiefly on the weight to be assigned to the testimony by the trier of fact, not its admissibility.").

In sum, Oliver correctly claims that some of the other articles cited by Arnall, such as the Fay article, are not peer reviewed, scientific studies. However, this is not a sound basis for excluding Arnall's testimony given the reliability of the other sources he relied on in formulating his opinion and that "it does not appear to be beyond the realm of expertise of a forensic pathologist to opine as to the cause or manner of death." *Jacobs v. N. King Shipping Co.*, No. Civ. A. 97-772, 1998 WL 28233, at *2 (E.D. La. Jan. 23, 1998).

3. Metabolic acidosis

Oliver notes Arnall's testimony that some published studies differ from his conclusion that medical acidosis caused Troy's death, specifically that some responsible pathologists believe that

[12] J. Parkes, *Sudden death during restraint: do some positions affect lung function?*, MED SCI LAW (April 2008), https://www.ncbi.nlm.nih.gov/pubmed/18533573 (emphasis added).

PMR does not cause positional asphyxia. Doc. #400 at 20. Oliver submits that there is no medical support for the conclusion that Troy suffered from metabolic acidosis—and even if he did, Arnall could not diagnose it—so his opinion on it should be excluded. *Id*. at 27–28.

Regarding his opinions on metabolic acidosis, Arnall testified in his deposition that he cannot diagnose acidosis in live patients,

> [b]ut in dead patients, I do review medical charts on a regular basis to assist me in determining why they're dead. … And while I cannot measure acidosis in a postmortem individual and reliably predict their pre-mortem stats based on pH, … I can measure ketones in vitreous humor.
> …
> So it is something I have to deal with, because I have to make that diagnosis. I just do it a different way because in dead people you can't use an arterial blood gas to reliably determine pre-mortem acidotic state. In a living person, you can't take their vitreous humor.

Doc. #399-10 at 52–53. Thus, Arnall's method for assessing whether Troy suffered from metabolic acidosis—reviewing charts, conducting tests, and drawing from medical experience and training—demonstrates sufficient indicia of reliability to be admitted, even if no blood testing was performed on Troy while he was alive to determine the pH level of his blood. *See Pipitone v. Biomatrix, Inc.*, 288 F.3d 239, 246 (5th Cir. 2002) ("first-hand observations and professional experience in translating these observations into medical diagnoses" can provide a reliable basis for expert testimony); *see also Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 156 (1999) ("[N]o one denies that an expert might draw a conclusion from a set of observations based on extensive and specialized experience.").

4. Oxygen saturation

Arnall testified that Troy was suffering from oxygen saturation based on oxygen readings taken while he was alive, which indicated a blood saturation level of ninety percent; however, when asked whether he normally used and responded to oxygen saturation measurements in his

medical practice, Arnall testified that "[s]ince 2005, … other than seeing patients with trauma, all the patients have been dead patients." Doc. #399-10 at 43. Oliver submits that Arnall's opinion on oxygen saturation should be excluded because Arnall does not treat this condition in his medical practice and thus lacks the foundation to opine that it caused Troy's death. Doc. #400 at 28.

Arnall's testimony, however, merely indicates that he does not treat patients with this condition rather than suggests that Arnall could not assess whether an indication of ninety percent oxygen saturation taken while a patient was alive could have caused his death. In fact, Arnall testified that such a reading "is on the cusp of a measurement that would require oxygen therapy … in any individual," especially considering his opinion that Troy was suffering from metabolic acidosis: "I would caution any medical caregiver that a pulse oximetry reading of 90 [percent] in and of itself carries certain cautionary admonishments, more so in a person who had another underlying physiologic problem, and that's metabolic acidosis." *Id*. at 42–43. Arnall's opinion therefore shows sufficient indicia of reliability to be admitted considering Arnall's experience, methodology, and training.

5. Ativan and Haldol

Arnall opines that the Ativan and Haldol Oliver administered to Troy at BMH-D contributed to his death. Doc. #458-9 at 7, 9. Oliver argues this opinion should be excluded as irrelevant because it will not help the trier of fact understand the evidence or determine a fact in issue given that there is no foundation for the opinion in Kelli's amended complaint. *See* Doc. #107.

The amended complaint does not mention Ativan and Haldol. Although it does mention that BMH-D and Oliver failed "to use appropriate medical restraints," *id.* at 61, this comment suggests that chemical restraints such as Ativan and Haldol would have been preferable to a

physical PMR. Accordingly, Arnall will be precluded from opining on a matter that was not pled.

E. David Nichols

David Nichols, a professor of chemical biology and medicinal chemistry at the University of North Carolina, has researched and studied LSD for more than thirty years. Doc. #458 at 23. After reviewing medical records, autopsy reports, and other materials, Nichols concluded that Troy did not die from complications related to LSD toxicity because a relatively small amount was present in Troy's blood and only "massive doses of LSD can result in death." *Id*. Oliver contends that Nichols, a Ph.D. who is not a physician, should be precluded from offering medical or causation opinions on topics including "excited delirium and cardiotoxic levels of catecholamines." Doc. #400 at 17.

In response, Kelli asserts that while Nichols' expertise does not extend to the emergency room standard of care, "his expertise does encompass causation." Doc. #458 at 23. Kelli argues that Nichols is qualified because a "medical degree is not a prerequisite for expert testimony relating to medicine … [and] scientists with PhDs are qualified to testify about fields of medicine ancillary to their field of research." *Id*.

"A medical degree is not a prerequisite for expert testimony relating to medicine. For example, we have held that scientists with PhDs were qualified to testify about fields of medicine ancillary to their field of research." *Carlson v. Bioremedi Therapeutic Sys., Inc.*, 822 F.3d 194, 200 (5th Cir. 2016). "In the absence of expertise in an ancillary field, however, we have held a non-physician is not qualified to give medical testimony." *Id*.

Here, Nichols based his conclusion that "LSD did not cause a physiological response that ultimately resulted in" Troy's death on two considerations: (1) given its pharmacological properties, lethal overdoses of LSD arise from the "ingestion of massive quantities" far beyond

what Troy had consumed; and (2) "[u]nlike many other controlled substances, use of LSD does not produce cardiotoxic level of catecholamines, and does not suppress respiration, mechanisms that can lead to death with other drugs of abuse, but not with LSD." Doc. #458-10 at 3. Nichols' report indicates he is a highly-qualified expert regarding LSD who employed a sound methodology extensively supported by peer-reviewed, scientific literature to reach his conclusion. Nichols thus can testify as to excited delirium and catecholamines insofar as they relate to the pharmacological properties and effects of LSD. He will be precluded, however, from offering medical testimony to diagnose Troy's cause of death. Put differently, Nichols can offer testimony to rebut the medical examiner's cause of death—"complications of LSD toxicity"—through testimony on LSD's properties and effects but cannot testify as to what, in fact, caused Troy's death.

F. Robert Krause

Krause, who has thirty-six years of experience in emergency medical services, was retained by Kelli to testify on breaches in the standard of care by the Southaven Fire Department's paramedics. Doc. #458 at 24. Oliver asserts that Krause, who is a paramedic by training and not a physician, "offered multiple opinions regarding the standard of care in an emergency department and what should have allegedly been done for Mr. Goode at BMH-D …." Doc. #400 at 16. For example, Oliver asserts that Krause offered medical standard of care and causation opinions related to Troy's heart rate, oxygen saturation, existence of hypoxia, positioning, and cause of cardiac distress. *Id*. In response, Kelli contends that because Krause has the requisite credentials, it "is plain that there is no basis to preclude any portion of [his] testimony regarding the breaches in the standard of care of the Southaven Fire Department …." Doc. #458 at 24.

Krause, a paramedic and not a physician, will be precluded from offering standard of care and causation opinion testimony against Oliver, as there is no evidence that he would exercise in

his testimony the same level of intellectual rigor that characterizes the practice of medicine as a physician. *See Dart v. Kitchens Bros. Mfg. Co*., 253 F. App'x 395, 398 (5th Cir. 2007) ("It is ... the district court's responsibility to make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.") (internal quotation marks omitted); *Berry v. McDermid Transp., Inc*., No. 404cv0003, 2005 WL 2147946, at *2 (N.D. Ind. Aug. 1, 2005) (noting that "[i]ndividuals who lack medical degrees understandably may face difficulties in asking a court to treat them as qualified to testify as to medical questions"). However, no challenge has been made to Krause's ability to testify on breaches in the standard of care by the Southaven Fire Department. Accordingly, Krause will be permitted to testify as to whether the Southaven Fire Department breached the EMS standard of care but he cannot offer standard of care or opinion testimony as to Oliver or any other BMH-D personnel.

G. Darrell Coslin

Kelli designated Darrell Coslin, who has worked in law enforcement for thirty-three years, as an expert in police procedure. Doc. #458 at 24. Oliver asserts that Coslin—who is not a physician—is "not qualified to offer any opinions about what should or should not have occurred in the emergency department at BMH-D regarding Mr. Goode." Doc. #400 at 17. Oliver thus contends that Coslin should be precluded from opining "that it was not acceptable for Mr. Goode to remain in [PMR] at the hospital." *Id*. In response, Kelli contends that as Coslin has the requisite credentials, it "is plain that there is no basis to preclude any portion of [his] testimony regarding the breaches in the standard of care of the Southaven Fire Department …." Doc. #458 at 24.

Coslin, who is not a physician, will be precluded from offering standard of care and causation opinion testimony against Oliver or any BMH-D personnel, as there is no evidence that

he would exercise in his testimony the same level of intellectual rigor that characterizes the practice of medicine as a physician. *See Dart*, 253 F. App'x at 398; *Berry*, 2005 WL 2147946, at *2. However, no challenge has been made to Coslin's ability to testify on police procedure. Accordingly, given his extensive experience in law enforcement, Coslin will be permitted to testify as to the actions of the Southaven Police Department but he cannot offer standard of care or opinion testimony as to Oliver or any other BMH-D personnel.

IV
Conclusion

Oliver's *Daubert* motion [397] is **GRANTED in Part and DENIED in Part**. It is GRANTED (1) to the extent Parikh, Wecht, and Arnall are precluded from offering standard of care testimony; (2) as to Arnall's opinion on Ativan and Haldol; (3) as to Nichols' opinion on the medical cause of Troy's death (but not as to his opinion rebutting the medical examiner's cause of death); and (4) as to Krause and Coslin's causation opinion and standard of care opinions on BMH-D medical personnel and Oliver. The motion is DENIED in all other respects.

SO ORDERED, this 27th day of September, 2018.

/s/Debra M. Brown
UNITED STATES DISTRICT JUDGE